

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF VIRGINIA
Norfolk Division

EAST COAST REPAIR & FABRICATION,
LLC,

Plaintiff,

v.

Case No. 2:14cv606

UNITED STATES OF AMERICA,
THROUGH THE DEPARTMENT OF THE
NAVY, AND ITS ACTIVITY, THE NORFOLK
SHIP SUPPORT ACTIVITY,

Defendant.

OPINION AND ORDER

This Opinion and Order follows a ten day bench trial involving numerous disputes arising out of a maritime contract between East Coast Repair & Fabrication, LLC, ("ECR" or "Plaintiff") and the United States of America, through the Department of the Navy, and its activity the Norfolk Ship Support Activity (hereinafter collectively "Defendant," the "Government," or the "Navy"). With the benefit of the trial transcript, the parties have filed post-trial briefs and submitted proposed findings of fact and conclusions of law. Therefore, the matter is now ripe for review.

I. Background Findings of Fact¹

A. Preliminary Summary

The instant action involves numerous contract disputes arising out of the overhaul of a Navy vessel by ECR, a private ship repair company. A summary of the case would be incomplete without acknowledging at the outset that such overhaul was in many ways doomed from the start, marred by disputes among the various Government teams, inexperience of key Government players, underestimation of the complexity of the repairs by ECR and its primary subcontractor Técnico Corporation ("Técnico"), a defective Government specification based on an outdated hull survey, various "moving ball" standards employed by the Government regarding the manner in which hull "deflection" was measured, multi-month delays occurring at the outset of the overhaul, and lack of training and/or understanding of the unique nature of the type of vessel being overhauled by project managers, engineers, and other persons working in key positions for ECR, Técnico, and the Government. These and other issues somewhat predictably led the parties to this Court, and the only

¹ As noted by the parties at trial, the disputed contract issues before the Court are so numerous, and so varied, that the bench trial in this case was essentially multiple "mini-trials." In order to effectively organize the varied factual findings necessary to resolve such varied disputes, the instant section sets forth both general background factual findings that lay a foundation for the entire case, and facts associated with some of the primary, and largest dollar value, disputes. Due to the fact that there are approximately forty separate claim items in this case, additional claim-specific facts are set forth below within the Court's analysis of such individual items.

easy conclusion to draw from the trial evidence is that it is impossible to apportion the entire blame for the contract disputes to one party or the other. Against such backdrop, the Court makes the following findings and conclusions, ultimately entering a **PARTIAL DAMAGE AWARD** to ECR, and to its primary subcontractor Técnico on multiple "pass-through" claims.

B. Stipulated Facts and Procedural Background²

1. Plaintiff, ECR, is a Virginia corporation organized under the laws of the Commonwealth of Virginia with its principal place of business in Norfolk, Virginia. ECR performs ship repair work for commercial customers and for the United States Government, including the U.S. Navy.

2. The subject of this dispute arises from a contract between the Navy and ECR under contract number N50054-11-C-1107 (hereinafter the "Contract") for ship repair work on the vessel USS THUNDERBOLT (PC-12) (hereinafter the "THUNDERBOLT" or the "Vessel"). The Government has issued a Contracting Officer's Final Decision denying ECR's Request for Equitable Adjustment (hereinafter "REA") seeking additional compensation for vessel repairs performed on the THUNDERBOLT.

3. The THUNDERBOLT is a Navy Patrol Coastal Ship of the CYCLONE class ("PC") and is a public vessel of the United States

² Unless otherwise noted, such stipulations are expressly set forth in the Final Pretrial Order. ECF Nos. 23, 25.

being operated by the Navy as part of the United States fleet. The THUNDERBOLT has been homeported and forward deployed at Naval Support Activity Bahrain since July 3, 2013, but was, at times relevant to this lawsuit, homeported in, and the repair work at issue was completed in Hampton Roads, which is within the Eastern District of Virginia.

4. The Navy built the CYCLONE class of patrol craft, including the THUNDERBOLT (PC-7), in the early 1990's as support craft for Navy SEAL teams. The CYCLONE class ships were originally designed for a service life of fifteen years, and by 2010, the ships were found to have suffered metal fatigue in their hulls. However, when a new mission for the ships in the Arabian Gulf was identified, the Navy undertook extensive repairs to the ships to extend their usefulness in the new role.

5. As the repairs to accomplish the overhauls of the CYCLONE class ships were identified and specifications were written, an initial contract for the overhaul of the THUNDERBOLT was finalized between the Navy and Marine Hydraulics International ("MHI"). The disassembly of the THUNDERBOLT began under such contract, and the parts were stored by MHI.³

6. In the spring of 2011, the Navy solicited another contract to complete the overhaul of the THUNDERBOLT that was

³ Although not set forth in the stipulations in the Final Pretrial Order, it is undisputed that the MHI availability was terminated by the Navy "for convenience."

begun by MHI. The solicitation sought fixed price bids for the specified repairs and advised potential bidders that the Vessel had been partially disassembled, with many parts in storage.

7. ECR prepared and submitted its quote for the THUNDERBOLT work and contract, relying on the information the Navy made available during the proposal phase regarding the scope of the work to be performed (the "specification" or "Specification Package"). The Navy awarded the Contract to ECR on August 25, 2011, at ECR's bid price of \$7,317,394. Such Contract was a "Fixed Price" contract, as contrasted with a "Cost Reimbursement Contract."⁴

8. The Contract contained four (4) Contract Line Item Numbers or CLINs, and all disputes at issue in this case pertain to the performance of CLIN 1, which was the main work item. CLIN 1 required ECR to: Plan for and accomplish the drydocking restricted availability (DRAV) of USS THUNDERBOLT (PC-12) SSP 038-11 (excluding CLIN 002). Among the Contract work to be performed was the cropping out and replacement of the THUNDERBOLT's hull structure, plate, and stiffeners, referred to as the "structural steel work." The bulk of this work was to be performed while the THUNDERBOLT was docked at ECR's repair facility.

⁴ The Final Pretrial Order does not include the stipulation that the Contract at issue is a "Fixed Price" contract; however, such fact is not in dispute.

9. Specification Package #037-11 listed fifty-seven Navy "Standard Items" that were explicitly incorporated into the Contract, named fifty-seven more Standard Items which might be invoked as changes were made to the Contract, then described the "Planned Work" of the overhaul in fifty-nine "Work Items" that specified the exact work to be done on the Vessel.

10. The initial schedule under which the work was to be accomplished was specified in the Contract as a series of milestones. The THUNDERBOLT was towed to ECR on September 26, 2011, starting the availability, and the last milestone was the completion of the availability, which was to be accomplished by June 22, 2012. The initial performance period of the Contract was therefore 270 days. The original Contract milestones called for the docking to occur on October 7, 2011, and for undocking to occur on May 10, 2012.

11. The "Changes" clause incorporated into this Contract, Federal Acquisition Regulation ("FAR") 52.243-1 (Alt II - Aug 1987), provides that changes to such fixed price contract can be made by the "Contracting Officer" and that: "If any such change causes an increase or decrease in the cost of, or the time required for, performance of any part of the work under this contract, whether or not changed by the order, the Contracting Officer shall make an equitable adjustment in the contract

price, the delivery schedule, or both, and shall modify the contract."

12. As the overhaul of the THUNDERBOLT progressed, plans and procedures for the work detailed in the specification package caused delays and new "growth" work was added to the package. As these new requirements arose, the Navy eventually issued a series of fifty-nine written Contract modifications.

13. Of these fifty-nine modifications, forty-three were bilateral, i.e., signed and agreed to by both the Navy and ECR as to the price and the impact on the then current schedule. The remaining sixteen modifications were unilateral, i.e., issued and priced by the Navy but not agreed to by ECR. The unilateral modifications included prices and/or time extensions granted by the Navy but not agreed to by ECR, and several involved "credits" reducing the overall Contract price.

14. After issuance of the fifty-nine modifications, the total Contract price was \$15,536.680.57, and the contractually scheduled/allowed final completion date was December 9, 2012. The performance period was therefore extended by the Navy from the original 270 days by an additional 172 days. The THUNDERBOLT availability was not complete until April 2013, several months after the modified performance date.⁵

⁵ The parties dispute the date ECR completed work on the Vessel, with ECR asserting that the availability ended on April 1, 2013, and the Government asserting that it did not end until April 23, 2013. The

15. On September 27, 2013, some months after ECR had completed work on the Vessel and delivered it to the Navy, ECR submitted its properly certified REA to the Navy seeking further adjustment of, and compensation for, the changes to the work scope and means and methods of performance on the THUNDERBOLT under the terms of the Contract.

16. On or about September 8, 2014, the Navy issued its Final Decision by letter Serial 414/WKR/306. The Navy's Final Decision denied ECR's REA in its entirety, to include the claims ECR submitted on behalf of its subcontractors. The Final Decision also provided notice to ECR of its right to appeal the Final Decision.

17. On or about November 25, 2014, ECR filed this timely appeal of the Contracting Officer's Final Decision in the United States District Court for the Eastern District of Virginia, Norfolk Division.

18. Subsequent to the filing of this lawsuit, ECR and one of its subcontractors, Marine & Industrial Coatings, LLC ("MIC"), entered into negotiations to resolve the then-pending subcontractor "pass-through" claim which was included with the ECR damages calculations.

precise date of "substantial completion" is important as it impacts the calculation of liquidated damages owed by ECR to the Government.

19. MIC and ECR settled the MIC subcontractor REA for \$650,000 which is approximately 52% of the original value of MIC's claim (\$1,251,545). This settlement was acknowledged in ECR's Initial Disclosures filed in this matter, and ECR has subsequently reduced its damages request to reflect the settlement, to include a reduction in the amount claimed for "General and Administrative" expenses ("G&A") calculated based on the MIC claim. Such changes result in a revised damages amount, or ad damnum, of \$11,166,815.

**C. Additional Factual Findings Based on
Evidence Presented at Trial**

Based on the trial evidence, the Court makes the following additional factual findings by a preponderance of the evidence:

1. The THUNDERBOLT is a thin-hulled PC class vessel engineered very differently from the "surface combatant" ships in the Navy's fleet. Such fact had broad reaching impacts on the overhaul of the THUNDERBOLT, and led to many of the disputes litigated before this Court. This is particularly the case because the Navy treated PC class vessels as "ships" during prior repair "availabilities," but took steps to change such treatment during 2011.

2. The THUNDERBOLT was one of three PC class vessels being overhauled around the same time (2011-2013) in the Hampton Roads port. In addition to the THUNDERBOLT, the USS TEMPEST was

overhauled by ECR at the same Portsmouth shipyard as the THUNDERBOLT, with the initial plan being that the major work items on the two vessels would be worked in sequence, with the THUNDERBOLT beginning first. The USS SQUALL was the third PC class vessel being overhauled, although it was overhauled by a different local shipyard located in Norfolk: Colonna's Shipyard, Inc. ("Colonna's").

3. The THUNDERBOLT overhaul, as well as the two other concurrent PC overhauls, was a high-priority availability from the Navy's perspective. However, different Navy representatives had different, and in many ways conflicting, priorities. First, there was an operational priority to finish the overhaul as soon as possible so that the Vessel could be deployed in the Middle East. Second, there was a conflicting engineering priority to conduct the repairs in a methodical and conservative manner in order to reduce risk of inadvertent hull damage and/or the need for "rework" on the thin-hulled PC class vessel. While there is no question that both Plaintiff and Defendant are responsible for delays during the THUNDERBOLT availability, needless to say, it was impossible for ECR to speed up, and slow down, at the same time.

4. The Navy's ship repair group based in Hampton Roads, Virginia, has had various names over the years, including the Norfolk Ship Support Activity ("NSSA"), the Mid-Atlantic

Regional Maintenance Center ("MARMC"), and SUPSHIP. PC class vessels, including the THUNDERBOLT, have been repaired in the past on multiple occasions, including repairs at local Hampton Roads shipyards. Such prior repairs, however, were not complete overhauls aimed at resolving structural damage throughout the entire vessels.⁶ When prior PC repairs were performed locally, the Navy's Carderock Division ("Carderock"), which consists of engineers and naval architects, was not involved. Rather, in the past, engineers working at NSSA/MARMC would oversee the repairs. The contracts governing such prior repairs invoked various Navy "Standard Items" even though such standards and procedures were originally written to govern repair work on large surface combatants such as cruisers, destroyers, and frigates.

5. From a structural standpoint, the PC class vessels are not "ships," and are not "boats," but are more of a hybrid, and therefore are structurally different from Navy surface combatants. Unlike a surface combatant, a PC is a high-speed craft that will semi-plane (which makes it like a boat), and to achieve such performance, the hull structure is very lightweight (and thus very thin). Speaking generally, ships have a backbone

⁶ As set forth herein in the stipulated facts, the THUNDERBOLT had started to undergo an overhaul at MHI Shipyard, but such availability was canceled by the Navy and resubmitted for new bids. Additionally, several years prior to the MHI availability, ECR acted as a subcontractor on a local THUNDERBOLT availability where the stern of the Vessel was repaired.

(a keel), whereas PCs do not have a keel. A PC's structural strength is based on the shell plate, the shell plate stiffeners, the longitudinal girders, and the main deck stiffeners.

6. At the time of its overhaul by ECR, the THUNDERBOLT was several years past the end of its useful life, and large portions of structural steel, including its hull, deck, stiffeners and girders, were damaged and needed to be replaced. The degree to which a section of structural steel is "not fair," i.e., dented or bent, is referred to as "deflection." Unfortunately for all involved in the THUNDERBOLT overhaul, the Government did not update the specification for the planned overhaul with a new and detailed "survey" of the THUNDERBOLT's hull as measured immediately prior to the ECR overhaul, but instead relied on an outdated hull survey that had been performed prior to the MHI availability.

7. During the summer of 2011 when ECR was awarded the Contract for the THUNDERBOLT overhaul, the following entities did not fully appreciate the engineering challenges involved in a PC overhaul involving large-scale structural steel renewal: ECR, ECR's structural steel contractor-Técnico, the Navy Contracting Officers assigned to the THUNDERBOLT (the individuals responsible for contract-related issues and authorizing growth work and new work differing from that

required under the terms of the Contract, as well as compensation for such changes), the Navy maintenance team assigned to the THUNDERBOLT (the team responsible for overseeing day-to-day repairs, led by Navy Project Manager Justin Thivierge ("Thivierge")), and arguably most importantly, Navy engineers employed by NSSA, to include the lead Project Support Engineer. See, e.g., ECR Ex. 361.

8. At the time the Contract was awarded, based on knowledge obtained from prior PC overhauls occurring in the country of Bahrain, the Navy's Carderock engineers had detailed information about PCs, including newly identified structural risks associated with a large-scale overhaul. Such information, however, resided only in Carderock, and there was an internal Government "information gap" between Carderock and NSSA. Critically, it was NSSA who wrote the specification for the overhaul of the THUNDERBOLT that was bid on by ECR. The disconnect between Carderock and NSSA is further evidenced by the fact that the specification for the THUNDERBOLT overhaul omitted a reference to a newly developed Government Liaison Action Record ("LAR") specific to structural steel renewals on PC class vessels that established the updated standard for measuring deflection after structural steel repairs are performed. Although the updated LAR was not part of the

Contract, the Government held ECR and Técnico to such newly developed standard during the THUNDERBOLT availability.

9. The specification provided by the Navy to enable ECR (and others) to bid on the THUNDERBOLT overhaul did not include restrictions as to how the steel repairs were to proceed, nor did the specification, or other bid documents, effectively communicate the knowledge that Navy Carderock engineers had obtained in 2010 during PC overalls in Bahrain. Moreover, ECR had prior familiarity working on PCs as required by NSSA, including the THUNDERBOLT, and the PCs were previously treated as ships by NSSA notwithstanding their "hybrid" nature. Notwithstanding such past treatment, ECR was contractually bound to perform as required in the Contract documents, and to the extent the Contract included provisions that may have been viewed as "atypical" in the industry, ECR bore the risk of the additional costs of satisfying such contractual provisions.

10. After ECR was awarded the THUNDERBOLT Contract, but before the Vessel was ever docked, the planned nine-month timeline for the availability was delayed by more than two months. Due to no fault of ECR, even after the Contract was awarded, the Navy was "still analyzing how best to lift the USS THUNDERBOLT out of the water and haul it up to the shipyard without structural damages." ECF No. 58 ¶ 28. The Navy was working on such plan because a Carderock engineering analysis

had concluded that one of the "root causes" of the existing structural damage on the PC vessels was performance of past dockings utilizing the Navy's own flawed required docking plan. Trial Tr. 1353. The Navy failed to inform ECR of such issue until after its bid was accepted.

11. As a result of the docking issues caused by the Navy, the docking of the THUNDERBOLT was delayed from October 7, 2011, until December 13, 2011, putting the availability more than two months behind schedule before the THUNDERBOLT was ever out of the water. Such delay was the subject of a bilateral Contract modification (MOD-8), and ECR was compensated \$1,350,000. JE 8, Govt. Ex. 36. As part of such negotiated change, which included release language, ECR was precluded from seeking further compensation as a result of the docking delay. As a result of the agreed change, the Contract performance period was extended by approximately two months.

12. A second major issue that caused the planned timing of the THUNDERBOLT availability to derail from the start is the fact that, almost immediately after the THUNDERBOLT Contract was awarded to ECR, the Navy informed ECR that a Process Control Procedure ("PCP") would be required by the Navy for the structural steel renewals on the THUNDERBOLT. The structural steel work was the largest line item of the overhaul, and the Navy's invocation of a PCP for the structural steel would afford

the Navy far more oversight of, and the authority to control, the processes and procedures used by ECR to replace the steel.

13. Because the Navy did not invoke the PCP until after ECR's bid was accepted, ECR's bid price for the THUNDERBOLT did not include the added cost of writing or implementing a PCP for the structural steel renewals. Rather, ECR's bid was based on its intent to follow "good ship-fitting" practices when removing and replacing large portions of steel simultaneously, taking the necessary steps to ensure the structural integrity of the Vessel consistent with its past work for the Navy on the THUNDERBOLT and other PC class vessels. However, from the perspective of Navy Carderock Engineer Chris Foeller (the most knowledgeable Navy Engineer at the time of the THUNDERBOLT availability regarding PC class structural steel renewals), it was unlikely that the use of "good ship-fitting practices" would ensure the Vessel's structural integrity. Trial Tr. 1367. Critically, such viewpoint: (1) was never shared with ECR prior to the availability or at the time the PCP requirement was announced by the Navy; (2) was grounded in the Navy's newly discovered undisclosed superior knowledge, purportedly learned during the prior Bahrain PC availabilities; and (3) was the viewpoint of

Mr. Foeller/Carderock, and was not a fact proven by Defendant by a preponderance of the evidence.⁷

14. Prior to the 2011 PC class availabilities in Hampton Roads, the only time the Navy had invoked a PCP for structural steel repairs on a PC class vessel was the Navy-terminated availability on the THUNDERBOLT at MHI shipyard. Such availability was terminated around the same time that a structural steel PCP had been finalized, although the PCP that the Navy approved for the MHI availability was relatively basic and covered a relatively small amount of structural work.

15. As to the earlier Bahrain availabilities, the Navy had not required a PCP, but did require that the Bahrain shipyards "provide a sequence and a plan." Trial Tr. 1350. Such required sequence/plan used in Bahrain is similar to a PCP, but is not the same, because the "plan" in Bahrain merely consisted of "general guidelines" of what the shipyard would do, and would not do, when replacing steel. Id. For example, the Bahrain shipyard would be prohibited from working on two side-by-side structural steel frames at the same time. Id. In contrast, the PCP ultimately mandated by the Government for the THUNDERBOLT availability required that every frame, every cut, be pre-

⁷ Clarifying this final point, it was never proven at trial that ECR's initial repair plan would have failed; rather, what was proven is that the Navy, both expressly and impliedly, informed ECR in December of 2011 and January of 2012 that the Navy was not willing to accept ECR's intended process/procedure for repairing the structural steel on the THUNDERBOLT.

planned and conducted in accordance with such sequenced plan without deviation (unless permission to deviate was subsequently granted by the Navy).

16. After informing ECR of the newly added PCP requirement, the Navy invoked Standard Item 009-09 "Process Control Procedure, Provide and Accomplish" for the structural steel work on the THUNDERBOLT (Contract Item No: 110-11-002). More specifically, on September 16, 2011, the Navy issued a Request for Contract Change (RCC-7G), requiring a structural steel PCP.

17. Around this same time, upon recommendation of the Navy, ECR solicited subcontractor bids from Técnico for the performance of the structural steel work. Técnico is a corporation that is a partial owner of ECR, but it operates independently from ECR and competes in the marketplace with ECR. The Navy suggested Técnico to ECR because Técnico was the subcontractor that had been hired to perform the structural steel work during the MHI availability on the THUNDERBOLT. Moreover, unlike ECR, Técnico had the necessary in-house engineers to develop a structural steel PCP and had previously developed the PCP for the less extensive steel work planned for the MHI availability.

18. After ECR reached out to Técnico, Técnico submitted two bids to ECR, one for the structural steel renewals, and a separate bid for developing/writing a structural steel PCP. ECR

ultimately hired Técnico both to write the PCP and to perform the structural steel renewals, although ECR retained the obligation to provide labor and other support for Técnico's steel renewal efforts.

19. ECR and the Government thereafter negotiated a formal change order modifying the Contract to include a PCP for the structural steel renewals. Although there was a pricing dispute, the parties came to an agreement on November 14, 2011, incorporating RCC-7G into the Contract through "MOD-2" at a price of \$39,000. JE 2.

20. On December 1, 2011, a few weeks after the PCP pricing issue was settled by MOD-2, the Navy conducted a training session for both the Navy Maintenance Team that would oversee the THUNDERBOLT overhaul (to include various Navy Quality Assurance representatives and engineers) as well as ECR and Técnico. See ECR Ex. 87. This meeting occurred during the time that Técnico was writing the PCP, and the meeting focused on relaying the "lessons learned" by the Navy in the summer of 2010 from the Bahrain PC overhauls, to include "sequence welding, fairness inspections, permissible distortion allowance, fairness measurements, fit-up, welding requirements . . . pre-fit up, tack welding, weld sequence etc." Id. At such meeting, the Navy revealed its previously undisclosed knowledge as to the Navy's requirements for the process and procedure for performing

large-scale steel renewals in a conservative manner designed to avoid the risk of any further damage to the PC's thin hull and structure. ECR and Técnico both had representatives at the meeting, including Técnico's Project Manager, Timothy "Spike" Harrison. As a result of what the Navy revealed during such meeting, Técnico had to shift course in drafting its PCP to make it more detailed, and more restrictive, than both the PCP Técnico had planned to write, and the PCP Técnico had drafted for the MHI availability. Trial Tr. 730-31, 735-36, 1049-50; see also Trial Tr. 1357-58.

21. ECR submitted its first draft of the PCP to the Navy in late December, 2011, and because structural steel work could not begin until the PCP was approved by the Navy, the PCP was drafted in a manner to comply with the Navy's new requirements, as outlined at the December 1, 2011, meeting. The Navy returned the PCP to ECR with required revisions on January 20, 2012.

22. The PCP was updated and modified to incorporate the changes required by the Navy, and was ultimately approved the first week of February of 2012. Defendant contends that ECR took too long to develop the PCP, whereas Plaintiff contends that the Government took too long to review/approve the PCP. The fact that the Navy took approximately a month to review the original draft of the PCP suggests that, at least early in the availability, the Navy's caution regarding structural concerns

was given more weight than the operational focus on completing the availability as soon as possible.

23. The restrictive nature of the sequencing of the steel renewal process as set forth in the approved PCP resulted in numerous delays throughout the project, with the structural steel work ultimately taking months longer than ECR, Técnico, or the Navy had anticipated. While the Navy did not share its requirements as to steel repair procedures that the Navy would insist upon until well after the Contract was bid and awarded, the Navy is not solely responsible for the delays during the structural steel renewals. First, trial testimony established that, as the author of the PCP, ECR/Técnico added unnecessary complexities and over-restrictive sequencing into the PCP that were not mandated by the Government. Second, ECR's president testified that ECR bid the job with "no plan" of attack as to how the steel work would be performed, and that ECR planned to simply "cut, fit, grind, and weld," removing large areas of steel plate with a large workforce working in multiple areas of the Vessel at the same time, treating the job like ECR would treat any other ship. Trial Tr. 104-06, 154. Such general plan of attack, which does not account for the special nature of a PC's structure, suggests that ECR underbid the project because it failed to fully appreciate the degree to which the THUNDERBOLT's inherent design would require ECR to take

additional steps (even without a PCP) to ensure the Vessel maintained its structural integrity. Moreover, it appears that ECR and Técnico did not fully appreciate the added time (and expense) that would result from the mandated Government "G-point" inspections that were required by the terms of the original Contract, to include both "fit-up" inspections and "pre fit-up" inspections. ECR Ex. 15, at Item No. 110-11-002. Third, there were times during the steel renewals when Técnico failed to maintain an adequate workforce of welders, which caused ECR/Técnico to fall further behind schedule. Govt. Exs. 92, 108.

24. Also causing delays during the THUNDERBOLT availability was the Government's failure to timely negotiate and approve change orders,⁸ and the fact that the Navy's on-site maintenance team, led by Mr. Thivierge, as well as the Navy's contracting team, included individuals in key positions with limited relevant experience. In light of the high-visibility and high-priority of the THUNDERBOLT overhaul, as well as the Navy's still emerging understanding of the special complexities associated with a large-scale overhaul of a PC class vessel that

⁸ For example, ECR Ex. 90 is an internal Government email chain from May of 2012 acknowledging the Government delays getting change order work approved. Such email chain includes an email from the lead military representative at NSSA "Waterfront Ops" stating: "EVERYONE- We are NOT executing these avails successfully. . . . We are not functioning as a team, and that is NOT acceptable for the United States Navy's premiere maintenance organization." Id.

was several years past the end of its useful life, it is surprising that the Government assigned: (1) an electrical, rather than a structural, engineer as its lead on-site "Project Support Engineer"; (2) inexperienced structural engineers working under, or otherwise assisting, the Project Support Engineer; (3) inexperienced Shipbuilding Specialists ("SBS") with the role of performing Government inspections ("G-points") who were not familiar with the governing Navy standards and who needed to be educated by ECR/Técnico employees; and (4) for the latter part of the availability, an Authorized Contracting Officer ("ACO"), in charge of approving all growth/change order work and responsible for negotiating pricing for such work, who had never worked a "fixed price" contract prior to the THUNDERBOLT.

25. A separate cause for delay that occurred before the structural steel repair work began in earnest was the fact that, during February of 2012, the Navy failed to timely approve the cutting of Temporary Access Openings ("TAOs") that would allow the structural steel work to begin. Notably, in light of the design of the structural frame of a PC class vessel and the numerous small spaces in which repair work and welding was required on the THUNDERBOLT, TAOs were critical to the completion of the steel renewals. As required, Técnico submitted its TAO request three days before it intended to cut a

TAO, but the Government approval for some TAOs took weeks. To the extent the Government asserted at trial that Técnico requested too many TAOs at the start of the availability and it was impossible for the Navy to research and approve the TAOs in a timely manner, such claim at best evidences a Government staffing issue, a failure that does not fall on the shoulders of ECR or Técnico under these circumstances.

26. Based on the docking delays, PCP drafting/approval delays, and TAO delays, structural steel work that was initially scheduled to begin in October of 2011 did not start until late February of 2012. These delays also led to the structural steel work on the TEMPEST beginning long before the completion of the steel work on the THUNDERBOLT, leading to steel renewals at ECR's shipyard being performed largely in parallel, rather than in sequence. Such fact led to a strain on both ECR's and Técnico's workforce, which contributed to numerous performance issues on the part of ECR and Técnico, as there was a limited number of welders that were skilled enough and/or willing to work on the thin-hulled THUNDERBOLT and TEMPEST. Cf. ECR Ex. 2, at 8. Moreover, mounting Government concerns regarding slower than expected progress on the steel renewals resulted in increased pressure on ECR from the Navy, which trickled down to the Técnico workforce, ultimately resulting in less than ideal working conditions that, at times, made it difficult for Técnico

to keep the structural steel renewals fully manned. Additionally: (1) some members of Técnico's workforce already had future work scheduled in other ports, and the fact that the THUNDERBOLT availability was months behind schedule caused some workers to leave for other projects; and (2) working on structural steel in the heat of the summer, rather than in the fall and winter as originally planned, was another negative that caused dissatisfaction among some of the Técnico workforce.⁹ See Govt. Ex. 92 (email from Técnico to ECR in May of 2012 indicating as follows: "The fact is that the work requirements and physical constraints of the work areas are creating havoc with our attempts to maintain a constant and stable work force. Either a high percentage of the personnel are not up to the higher than anticipated requirements or if they are, feel they can obtain easier work elsewhere.").

27. Although it is undisputed that the Government caused over two months of docking delays that contributed to some of the above staffing issues, it is critical to note that the Contract was modified by MOD-8/RCC-20G in order to fully compensate ECR for the two months of docking delays. Such modification includes a release that prevents ECR, or Técnico, from recovering any additional damages that flow from such

⁹ Técnico staffed the THUNDERBOLT availability with both welders that were Técnico employees and welders hired by Técnico on a temporary basis through a manpower company called "Platinum." Trial Tr. 1121-22.

delay. Accordingly, to the extent ECR failed at the time it negotiated MOD-8 to fully anticipate how the docking delay would "disrupt" its performance of the steel work several months later (to include "disruption" from the impact of the THUNDERBOLT and TEMPEST steel work being performed in parallel), such risk falls entirely on ECR.

28. In addition to Plaintiff being barred from recovering damages based on the docking delay and other bilateral Contract changes that included a "release," the trial evidence revealed that Plaintiff was responsible, to a degree, for delayed performance. The trial evidence demonstrated that, particularly at the beginning of the structural steel work, ECR/Técnico's performance at times failed to meet Contract requirements. Notably, the PC learning curve discussed above with respect to Navy personnel was also applicable to ECR, Técnico, and their workforce. The Court therefore finds that ECR and Técnico bear responsibility for some of the delays and "rework" for which they attempt to shift the blame to the Government.

II. Legal Standards and Preliminary Conclusions of Law

A. Jurisdiction over ECR's Claims

It is undisputed that this Court has jurisdiction over ECR's claims alleging that ECR suffered damages as a result of the Government's failure to provide compensation for alleged change order work pursuant to the parties' written Contract,

such jurisdiction being established by the Contract Disputes Act ("CDA") of 1978, 41 U.S.C. § 7101-09. Pursuant to § 7102(d), appeals of a Contracting Officer's Final Decision arising out of a maritime contract are governed by the Suits in Admiralty Act, 46 U.S.C. § 30901, et. seq. A contract to repair a vessel constitutes a maritime contract. New Bedford Dry Dock Co. v. Purdy (The Jack-O-Lantern), 258 U.S. 96, 99 (1922). Accordingly, there is no dispute as to whether the Contract at issue is a maritime contract, whether a "Final Decision" was rendered by a Contracting Officer, or whether this case was timely filed in the proper court. Moreover, while ECR was required to obtain a "Final Decision" from the Contracting Officer prior to filing suit in this Court, the instant case is a de novo proceeding and the Contracting Officer's decision is not entitled to any deference. See Assurance Co. v. United States, 813 F.2d 1202, 1206 (Fed. Cir. 1987); 41 U.S.C. §§ 7102(d), 7104(b).

B. Pass-through Claims - Subcontractors

The Government asserts that ECR has failed to demonstrate that the pass-through claims advanced by ECR, on behalf of subcontractors Técnico and MIC, are properly before this Court. It is well-established that "subcontractors do not have standing to sue the government under the Tucker Act, 28 U.S.C. § 1491, in the event of an alleged government breach or to enforce a claim

for equitable adjustment under the Contract Disputes Act of 1978." Erickson Air Crane Co. of Washington v. United States, 731 F.2d 810, 813 (Fed. Cir. 1984) (citations omitted). Subcontractors lack standing because the "government consents to be sued only by those with whom it has privity of contract, which it does not have with subcontractors." Id. An aggrieved subcontractor may, however, "prosecut[e] a claim against the government through and in right of the prime contractor's contract, and with the prime contractor's consent and cooperation." Id. Such claims are referred to as "pass-through" claims, and they must ultimately demonstrate that the Government breached an obligation under the terms of the contract with the prime contractor. Cf. E.R. Mitchell Const. Co. v. Danzig, 175 F.3d 1369, 1370 (Fed. Cir. 1999) (citing Severin v. United States, 99 Ct. Cl. 435 (1943)).

Notwithstanding the Government's arguments to the contrary, the Court finds that it has jurisdiction to consider the claims advanced by Técnico and MIC, further finding that none of the claims fail for lack of standing.¹⁰ ECR's trial evidence

¹⁰ The Government has not demonstrated that ECR, as prime contractor, lacks an obligation to Técnico or MIC for the costs at issue in their pass-through claims. While the Government cites to Severin v. United States, 99 Ct. Cl. 435 (1943) as well as a First Circuit case from 1967 in an effort to demonstrate a failure of Plaintiff's proof on this issue, the Government appears to ignore more recent precedent on the "Severin Doctrine." For example, in E.R. Mitchell Const. Co. v. Danzig, 175 F.3d 1369 (Fed. Cir. 1999), the Federal Circuit explained that the party bearing the burden under such doctrine "shifted" several decades ago, and "[t]hus, it became, and still is, the burden of the government to prove

demonstrated that the Government both caused delays and required ECR to perform additional work for which additional compensation was required under the "Changes" clause of the Contract between ECR and the Government. Such additional work was performed in part by ECR, and in part by its subcontractors, and both ECR, and its subcontractors through ECR, assert that they are owed compensation under the primary Contract for the changed scope of work demanded by the Government during the THUNDERBOLT availability. The claims addressed herein by the Court, both direct and "pass-through," are not "breach of contract" claims in the traditional sense, but instead seek compensation under "a specific contract adjustment provision," of the Contract. Cf. United States v. Utah Const. & Min. Co., 384 U.S. 394, 401-02, (1966) (discussing the "distinction between disputes over rights given by the contract and disputes over a violation of the contract" and noting that "to the extent complete relief is available under a specific contract adjustment provision, such

that the prime contractor is not responsible for the costs incurred by the subcontractor that are at issue in the pass-through suit." Id. at 1370. Here, not only has the Government failed to carry its burden on this issue, it appears questionable whether the Severin doctrine is even applicable to Técnico and MIC's pass-through claims. Notably, because these pass-through claims seek recovery pursuant to a specific contractual price adjustment provision (the "Changes" clause), as contrasted with seeking recovery based on a material "breach" of contract, the Government fails to distinguish case law establishing that the Severin doctrine is inapplicable where "the relief sought is an equitable adjustment under the changes clause of the prime contract." Hernandez, Kroone & Associates, Inc. v. United States, 110 Fed. Cl. 496, 522 (2013) (citing Blount Bros. Constr. Co. v. United States, 172 Ct. Cl. 1, 348 F.2d 471 (1965)); see Seger v. United States, 469 F.2d 292, 300 n.32 (Ct. Cl. 1972).

as the changes or changed conditions clauses, the controversy falls within the disputes clause" and should proceed under the disputes clause procedure rather than as an independent breach of contract action). While the Government is correct that neither Técnico nor MIC can recover damages based on additional work that is covered by a bilateral Contract change between ECR and the Government when such agreed-upon change included release language, such fact-intensive and issue-specific findings are not subject to a broad preliminary ruling couched as a jurisdictional or standing challenge.

C. Burden of Proof

1. Contractor Claims Under the "Changes" Clause

It is undisputed, and unremarkable, that Plaintiff has the burden to prove, by a preponderance of the evidence, its affirmative claims seeking an adjustment in the Contract price pursuant to the "Changes" clause. Delhur Indus., Inc. v. United States, 95 Fed. Cl. 446, 454 (2010). That is, for each instance in which ECR asserts that the Government required ECR/Técnico to perform additional work outside the scope of the original Contract requirements, but within the general scope of the work contemplated by the Contract, ECR/Técnico must demonstrate that such work was "demanded by the Navy and not required under" the terms of the Contract. Colonna's Shipyard, Inc. v. United States, No. 2:14cv331, 2015 WL 9008222, at *10 (E.D. Va. Dec.

14, 2015) (unpublished); cf. Stipulated Fact 12 (indicating that the Contracting Officer has the authority to make changes to the fixed price Contract, and that if such changes increase or decrease the cost, or time of performance, the Contracting Officer has the obligation to make "an equitable adjustment in the contract price, the delivery schedule, or both"); see Servidone Const. Corp. v. United States, 931 F.2d 860, 861 (Fed. Cir. 1991) ("To receive an equitable adjustment from the Government, a contractor must show three necessary elements—liability, causation, and resultant injury."); Delhur Indus., 95 Fed. Cl. at 453-54 ("To prove entitlement to an equitable adjustment, [the contractor] must show [by a preponderance of the evidence] 'liability, causation, and injury, and it must prove that the government somehow delayed, accelerated, augmented, or complicated the work, and thereby caused [it] to incur specific additional costs, and that those costs were reasonable, allowable, and allocable to the contract.'" (emphasis in original) (quoting SAB Constr., Inc. v. United States, 66 Fed. Cl. 77, 84-85 (2005))).

Stated differently, the contractual "breaches" that form the primary basis of ECR's case are not breaches in the traditional sense, but are the Government's alleged failure to provide compensation under the "Changes" clause after the Government demanded performance that varied from that required

under the terms of the written Contract. See The Redland Co. v. United States, 97 Fed. Cl. 736, 755 (2011) ("As the Federal Circuit has explained, 'contingencies contemplated by various contract clauses are remediable under those clauses of the contract, not as a breach of the contract.'" (quoting Triax-Pacific v. Stone, 958 F.2d 351, 354 (Fed. Cir. 1992))); cf. Design & Prod., Inc. v. United States, 18 Cl. Ct. 168, 196 (1989) ("A plaintiff is entitled to an equitable adjustment when required to perform work not called for in the contract, when performance generated additional expense, by a defendant who has mistakenly interpreted the contract to require that work." (citing United States v. Turner Constr. Co., 819 F.2d 283, 286 (Fed. Cir. 1987))).

In addition to formal changes in performance expressly ordered in writing by the Government's Contracting Officer, a contractor may obtain an equitable adjustment pursuant to the Changes clause under a theory referred to as a "constructive change." See The Redland Co., 97 Fed. Cl. at 755 ("Even when a contingency is not contemplated by a contract clause, such as when 'a contractor performs work beyond the contract requirements without a formal order, either by an informal order or due to the fault of the [g]overnment,' the situation is treated as a constructive change to the contract, not as a breach." (quoting Int'l Data Prods. Corp. v. United States, 492

F.3d 1317, 1325 (Fed. Cir. 2007))). "For a contract to be constructively changed, the plaintiff must demonstrate that the [g]overnment expressly or impliedly ordered the contractor to perform work that was outside the contract requirements." Tecom, Inc. v. United States, 66 Fed. Cl. 736, 774 (2005). As explained in detail by the United States Court of Federal Claims:

A constructive change entails two base components, the change component and the order or fault component. Al Johnson Constr. Co. v. United States, 20 Cl. Ct. 184, 204 (1990). The "change" component describes work outside of the scope of the contract, while the "order/fault" component describes the reason that the contractor performed the work. Embassy Moving & Storage Co. v. United States, 191 Ct. Cl. 537, 545, 424 F.2d 602, 607 (1970); Eggers & Higgins & Edwin A. Keeble Assocs., Inc. v. United States, 185 Ct. Cl. 765, 785, 403 F.2d 225, 236 (1968). Thus, if the Government either expressly or impliedly ordered work outside the scope of the contract, or if the Government otherwise caused the contractor to incur additional work, a constructive change arises for that work performed outside of the scope of the contract. Lathan Co. v. United States, 20 Cl. Ct. 122, 128 (1990). While the constructive change doctrine provides a means for a contractor recovery, the rationale for constructive changes involves the objective of persuading a contractor to continue to work pending resolution of any dispute involving the work at issue. American Line Builders, Inc. v. United States, 26 Cl. Ct. 1155, 1176 (1992).

Miller Elevator Co. v. United States, 30 Fed. Cl. 662, 678 (1994); see 1 Bruner & O'Connor Construction Law § 4:25 ("The doctrine of 'constructive change' is a legal fiction created in the mid-20th century by the federal judiciary and federal boards

of contract appeal to (1) remediate contractor claims for extra work, and (2) permit contractors to perform disputed work without having to risk abandonment of their contracts to preserve their claims. The theory underlying the constructive change concept is that where the government 'should have' issued a change order authorizing the extra work in the first place, the court or board may direct the government to do what 'should have been done' by directing the government to issue a formal change order."). Five distinct types of "constructive changes" have been identified by legal scholars and the courts: "(I) disputes over contract interpretation during performance; (II) Government interference or failure to cooperate; (III) defective specifications; (IV) misrepresentation and nondisclosure of superior knowledge; and (V) acceleration." Miller Elevator Co., 30 Fed. Cl. at 678 (citations omitted);¹¹ see 1 Bruner & O'Connor

¹¹ While the court in Miller concluded that the plaintiff had demonstrated a constructive change based on the government's failure to disclose superior knowledge, it noted that the non-disclosure of superior knowledge has historically been analyzed as an independent breach of contract claim. See Miller Elevator Co., 30 Fed. Cl. at 678 n.2 (citing cases); but see Johnson & Sons Erectors Co. v. United States, 231 Ct. Cl. 753, 757-59 (1982) (indicating that, depending on the circumstances, withholding of superior knowledge may warrant an equitable adjustment, or may "be [a] breach claim[] after all," but acknowledging the inherent danger in precluding a contractor from seeking an "equitable adjustment" for conduct that would otherwise constitute a "breach" because the contractor, if not allowed to pursue an equitable adjustment, "may be obliged to declare the contract at an end and cease performance in order to avoid a waiver and save its rights"). Here, ECR's complaint not only seeks an equitable adjustment based on "both directed and constructive" changes, but advances several alternative legal theories: "Breach of Duty to Disclose Superior Knowledge," "Quantum Meruit," "Breach of Contract," and "Breach of Contract - Cardinal Change." ECF No. 1. As set forth in the Final Pretrial Order, ECR appeared to later abandon such alternative theories of

Construction Law § 4:25 (outlining the same five types of constructive change); 1 Government Contract Changes § 10:7 (same); cf. ECR Ex. 60 §§ 2.18.4, 2.18.4.1, 2.18.4.1 (Navy "Joint Fleet Maintenance Manual" discussing "constructive change orders" occurring when: (1) the Government insists on more expensive performance than was actually required by the contract; (2) "the Government provides defective specifications and the contractor incurs additional expense attempting to perform"; (3) "the contractor undertakes to perform the contract without knowledge of vital information that affects performance" when the Government is aware that the contractor had no such knowledge).

If a formal change, or a constructive change, is proven, the contractor's "actual costs" of the changed work, provided that such costs are reasonable, will typically "provide the measure of the equitable adjustment." Delhur Indus., 95 Fed. Cl. at 454 (citing George Sollitt Constr. Co. v. United States,

relief, instead focusing its case solely on its "Contract adjustment" claim. ECF No. 23, at 149-51. The instant Opinion, therefore, does not address the alternative legal theories that ECR abandoned at trial, instead concluding that ECR has stated a valid "contract adjustment" claim premised, in part, on the Government's failure to disclose superior knowledge. Moreover, to the extent the trial record can be interpreted as ECR maintaining a stand-alone claim alleging that Defendant breached a disclosure duty, the Court finds that any award on such alternative theory would be duplicative to the Court's determination that ECR is entitled to compensation for a constructive change order premised, in part, on the Government's failure to disclose superior knowledge. Stated differently, the damages awarded by the Court on ECR's "Contract adjustment" claim fully compensates ECR for all of the Government's alleged "breaches" such that ECR is not entitled to any additional damages on any alternative legal theory that is arguably still before the Court.

64 Fed. Cl. 229, 245 (2005)). However, in complex cases, the determination of damages may not be possible with precision, and thus, "'where responsibility for damage is clear, it is not essential that the amount thereof be ascertainable with absolute exactness.'" Id. (quoting CEMS, Inc. v. United States, 59 Fed. Cl. 168, 227 (2003)). In such cases, a contractor can "meet its burden of proving damages if it 'furnishes the court with a reasonable basis for computation, even though the result is only approximate.'" Id. (quoting CEMS, Inc., 59 Fed. Cl. at 227).

2. Government Credits Under the "Changes" Clause

In contrast to the above, "when the government has deleted work and/or costs from a fixed price construction contract, the government, not the contractor, bears the burden of proving the amount of any downward equitable adjustment to the contract price." George Sollitt Constr., 64 Fed. Cl. at 246; see Nager Elec. Co. v. United States, 194 Ct. Cl. 835, 442 F.2d 936, 946 (1971) ("Just as the contractor has [the burden] when an upward adjustment is sought under the Changes clause, so the defendant has the laboring oar, and bears the risk of failure of proof, when a decrease is at issue.") (emphasis added); 2 Government Contract Changes § 19:5 ("When the Government asserts that a change decreased the costs of performance—and hence that it is entitled to a downward equitable adjustment in the price of the contract—it has the burden of proof."). As discussed below,

while the instant action primarily involves ECR/Técnico's affirmative requests for upward adjustments in the Contract price, there are also several Government credits that ECR attacks as being improperly claimed by Defendant.

3. Liquidated Damages

The contours of the legal standard governing disputes over the assessment of liquidated damages appears somewhat less settled than the standards discussed above, at least when both parties to a contract are responsible for contributing to delayed performance. The Federal Circuit has held that "[a]s a general rule, a party asserting that liquidated damages were improperly assessed bears the burden of showing the extent of the excusable delay to which it is entitled." Sauer Inc. v. Danzig, 224 F.3d 1340, 1347 (Fed. Cir. 2000). An arguably more complete statement of the applicable legal standard is as follows:

In the context of litigating liquidated damages assessed by the government in a construction contract, the government first must meet its initial burden of showing that "the contract performance requirements were not substantially completed by the contract completion date and that the period for which the assessment was made was proper." Once the government has met that burden, the burden then shifts to the contractor "to show that any delays were excusable and that it should be relieved of all or part of the assessment."

George Sollitt Constr., 64 Fed. Cl. at 243 (quoting PCL Constr. Servs., Inc. v. United States, 53 Fed. Cl. 479, 484 (2002),

aff'd, 96 F. App'x. 672 (Fed. Cir. 2004)). In order for the contractor to carry its burden it must "demonstrate that the excusable event caused a delay to the overall completion of the contract, i.e., that the delay affected activities on the critical path" because the contractor "is entitled to only so much time extension as the excusable cause actually delayed" completion of the contract. Morganti Nat'l, Inc. v. United States, 49 Fed. Cl. 110, 132 (2001), aff'd, 36 F. App'x 452 (Fed. Cir. 2002) (internal quotation marks and citations omitted).

If the contractor demonstrates that the government has contributed to the delay of project completion, there appears to be conflicting authority as to whether the government has waived liquidated damages entirely, or whether a partial award is appropriate after the delays are apportioned among the parties. See R.P. Wallace, Inc. v. United States, 63 Fed. Cl. 402, 409-13 (Ct. Fed. Cl. 2004) (discussing, at length, the "thorny" legal issues "posed by concurrent or sequential delays," noting that the "more heated debate" surrounds sequential delays, "where one party and then the other cause different delays"); see also Sauer Inc. v. Danzig, 224 F.3d 1340, 1347 (Fed. Cir. 2000) (acknowledging prior cases holding that "[w]here both parties contribute to a delay neither can recover damage, unless there is in the proof a clear apportionment of the delay and the

expense attributable to each party'") (quoting Coath & Goss, Inc. v. United States, 101 Ct. Cl. 702, 714-15 (1944)).

Having considered the somewhat conflicting positions taken on this issue in prior federal cases, this Court finds that the better legal interpretation regarding the proper treatment of "sequential delays" (where one party causes a delay followed by a separate-in-time delay caused by the other), is that "apportionment" should be permitted when the evidence provides a reliable basis on which to determine which party is responsible for which delay. R.P. Wallace, Inc., 63 Fed. Cl. at 411-13. Stated differently, the fact that the Government was solely responsible for some delays in this case (such as the delay associated with approving the TAOs), does not preclude the Government as a matter of law from recovering some amount of liquidated damages as a result of subsequent, and conceptually distinct, delays deemed to be solely the fault of ECR/Técnico.

As to performance delays deemed to be "concurrent," (both parties causing a delay at the same time), the established law reveals that ECR is permitted to seek an extension of the project completion date for such delay, as long as the delay caused by the Government would have disrupted the "critical path" in the absence of the delay caused by the contractor. Id. at 410. However, while ECR may seek an extension of the performance period for a concurrent delay, ECR is precluded by

law from obtaining a monetary award to compensate it for "delay damages" for such delays, with the appropriate relief being only the extension of the project completion date (which, in effect, results in a day-for-day reduction of the Government's liquidated damages claim). Cf. ECR Ex. 60 § 7.11.7 (Navy "Joint Fleet Maintenance Manual" stating that when the contractor and the government are responsible for a "concurrent delay" the government may not recover liquidated damages from the contractor and the contractor may not recover delay damages from the government).

D. Jury Verdict Method of Damages

As referenced above, a contractor bringing a claim for additional compensation under the Changes clause is not required to prove its damages with absolute precision. Delhur Indus., 95 Fed. Cl. at 454; see Ralph L. Jones Co. v. United States, 33 Fed. Cl. 327, 336 (1995) ("A contractor seeking an equitable adjustment need not prove his damages with absolute certainty or mathematical exactitude.") (internal quotation marks and citation omitted). In instances where actual damages for specific changes cannot be documented, federal courts have, on appropriate facts, still awarded damages under either the "total cost method" or the "jury verdict" method of calculating damages. CEMS, Inc., 59 Fed. Cl. at 227.

The total cost method compares the contractor's actual total costs to its original bid in an effort to quantify the damages associated with the increase in the work scope. Id. However, such damages theory is highly disfavored because it can operate to improperly shift the risk from the contractor to the government and can operate to afford the contractor a windfall in cases where the contractor failed to effectively control its costs, underbid the original job, and/or contributed to additional costs through its own deficient performance. Id.

The "jury verdict" method of calculating damages is "designed to produce an approximation of damages based on the entire record." Raytheon Co. v. White, 305 F.3d 1354, 1367 (Fed. Cir. 2002). Such method is employed when "'damages cannot be ascertained by any reasonable computation from actual figures,' but it 'is not favored and may be used only when other, more exact, methods cannot be applied.'" CEMS, Inc., 59 Fed. Cl. at 228 (quoting Dawco Constr., Inc. v. United States, 930 F.2d 872, 880 (Fed. Cir. 1991), rev'd on other grounds, Reflectone, Inc. v. Dalton, 60 F.3d 1572 (Fed. Cir. 1995) (en banc)). Accordingly, as explained by the United States Court of Claims:

In situations where the court has rejected the 'total cost' method of proving damages, but where the record nevertheless contains reasonably satisfactory evidence of what the damages are, computed on an acceptable basis, the court has adopted such other evidence; or

where such other evidence, although not satisfactory in and of itself upon which to base a judgment, has nevertheless been considered at least sufficient upon which to predicate a 'jury verdict' award, it has rendered a judgment based on such a verdict.

Boyajian v. United States, 423 F.2d 1231, 1244 (Ct. Cl. 1970) (internal citations omitted).

As recognized by the Federal Circuit, the primary peril of using the jury verdict method is "the risk that unrealistic assumptions will be adopted and extrapolated, greatly multiplying an award beyond reason, and rewarding preparers of imprecise claims based on undocumented costs with unjustified windfalls." Dawco Constr., 930 F.2d at 882. Accordingly, "[b]efore resorting to the jury verdict method, a court . . . must determine (1) that clear proof of injury exists; (2) that there is no more reliable method for calculating damages;¹² and (3) that the evidence is sufficient to make a fair and reasonable approximation of the damages." Raytheon Co., 305 F.3d at 1367 (citing WRB Corp. v. United States, 183 Ct. Cl. 409, 425 (1968)).

Here, ECR/Técnico's claimed damages are not based on "actual costs" associated with specific Contract changes. Rather, because ECR/Técnico did not track man-hours on the

¹² In Dawco Constr., the Federal Circuit reversed the damages award and remanded "for a redetermination of the equitable adjustment" under the "actual cost method," based on the fact that the record failed to demonstrate that the contractor "justifiably could not have submitted an 'actual cost claim.'" Dawco Constr., 930 F.2d at 882

THUNDERBOLT availability to specific tasks, Plaintiff's claims for equitable adjustments are estimates of the additional costs incurred as a direct result of each specific Contract change at issue, with such costs driven primarily by the labor expenses of ECR or Técnico employees. The Government asserts that, because ECR/Técnico failed to prove actual costs tracked to specific timecards documenting man-hours worked by an identified employee on a specific change order, this Court should refuse to apply the jury verdict method and hold that ECR's "estimates" constitute a wholesale failure of proof.

In determining the quantum of damages in this case, the Court rejects the "total cost method," which would focus at a macro level on ECR/Técnico's actual costs of performance of the entire Contract. Notably, because the trial evidence established that ECR/Técnico caused concurrent and sequential delays, to include those caused by deficiencies in ECR/Técnico's performance, such method would be woefully inaccurate and unreliable in this case. Moreover, the trial evidence revealed that, at the time of their initial bids (as prime contractor and subcontractor), ECR and Técnico underbid the Contract as a result of their failure to anticipate the complexities inherent in the express contractual requirements. Because ECR/Técnico must bear the cost of both their bidding and performance

deficiencies, the total cost method will not yield a reliable result.

The Court does, however, find that the use of the "jury verdict" method on a claim by claim basis is appropriate because it will, as to many disputed items, provide a sufficiently reliable damages calculation. As discussed below, the record sufficiently demonstrates: (1) that ECR/Técnico is not able to demonstrate actual costs of the additional work; (2) that there is no more reliable method of calculating damages; and (3) that the Court has before it credible trial testimony of ECR and Técnico's experienced estimators and project managers, coupled with hundreds of pages of exhibits documenting ECR/Técnico's detailed damages claims; these findings allow the Court to make a "fair and reasonable approximation" of Plaintiff's damages.

In concluding that the jury verdict method is appropriate in this case, the Court considered the following factors that contributed to ECR's inability to present evidence of actual costs at trial: (1) the overall complexity of the THUNDERBOLT availability, exacerbated by the lack of training and/or Contract interpretation mistakes by key Government personnel; (2) the parties' Contract is a "fixed price" contract for which the initial bid, and subsequent change orders, was based on a flat fee for specified performance, with the custom in the industry being that the contractor does not capture hours

allocated to each specific task, by each individual worker, as the cost of doing so would outweigh the benefits; (3) defects in the Government's specification and hull survey led to confusion as to whether work being demanded by the Government was new work, changed work, or work within the scope of ECR's original contractual obligations;¹³ (4) the difficulty in capturing the costs stemming from numerous delays caused by Government personnel (to include delays based on funding issues), for which the Government continues to assert that it is not at fault; (5) the Government's repeated failure to engage in timely negotiations of Contract modifications; (6) the fact that, as an apparent result of ineffective internal communication among different Government "teams" associated with the THUNDERBOLT overhaul, the Government placed mixed, conflicting, and at times demonstrably incorrect demands on ECR/Técnico regarding the standards of performance and/or the areas on the Vessel that required steel repairs, making it all but impossible for ECR to know when to act, how to act, and most importantly, how to "compartmentalize" its costs for work being performed; and (7) the course of the parties' dealing throughout the THUNDERBOLT availability and the Government's failure to request cost-

¹³ See, e.g., ECR Ex. 86 (Government authored summary of various problems occurring during the THUNDERBOLT/TEMPEST/SQUALL availabilities, including the fact that "Less than optimum Work Specifications were issued").

tracking on virtually every change required by the Government during the availability.¹⁴

Summarizing the parties' course of dealing under the Contract, when the parties agreed that additional growth work or change work was necessary, ECR would provide its "estimate" of the cost of the change and the Government would calculate its own Independent Government Estimate ("IGE"). The parties would then negotiate an agreed upon "fixed price" for the change. Such negotiated fixed price, whether it was negotiated before or after ECR started performing the new/changed work, was not based on "actual hours" recorded by a specific ECR employee performing a specific task; but rather, was based on estimates from experienced estimators on both sides of the table.¹⁵ Such

¹⁴ The Court further notes that, notwithstanding the fact that this was a complex overhaul of a unique class of vessel, the Government did not limit its solicitation to contractors with advanced capabilities sufficient to qualify them as a Master Ship Repair Agreement (MSRA) contractor, but instead accepted bids from less advanced contractors performing under an Agreement for Boat Repair (ABR). As the Government was well-aware, ECR was an ABR contractor at the time of the THUNDERBOLT availability, and ECR would not normally capture the time it allocated to each individual work item. Trial Tr. 269.

¹⁵ The Contract expressly incorporates "by reference" FAR clause 52.243-6. JE 60, at 43; see also JE 60, at 49 (indicating that clauses incorporated by reference have the same force as if reproduced in the contract in "full text"). The text of the incorporated FAR clause states as follows:

The Contracting Officer may require change order accounting whenever the estimated cost of a change or series of related changes exceeds \$100,000. The Contractor, for each change or series of related changes, shall maintain separate accounts, by job order or other suitable accounting procedure, of all incurred segregable, direct costs (less allocable credits) of work, both changed and not changed, allocable to the change. The Contractor shall maintain such accounts until the parties agree to an equitable adjustment for the changes ordered by

estimates were derived from the specific tasks to be performed, including the estimated "man-hours" to perform the work (with such hours further broken down by "trade" of the employee needed to perform the work (ex. Welder, Electrician, Engineering Tech., Firewatch, etc.)), and a separate estimate for the cost of materials, consumables, subcontractor expenses, as well as overhead/administrative markups and profit.¹⁶ Notably, even near the end of the availability when the Government and ECR attempted to negotiate change orders for work that had already been performed, it appears that estimates were used by both parties rather than actual costs. Unsurprisingly, when ECR later pursued an "equitable adjustment" after the availability ended, it was unable to turn back the clock and document its "actual costs" for countless tasks performed by countless employees over a multi-year availability. Rather, the REA

the Contracting Officer or the matter is conclusively disposed of in accordance with the Disputes clause.
 FAR 52.243-6, available at 48 C.F.R. § 52.243-6. While such Contract clause clearly requires ECR to segregate and track costs when requested by the Government, no such request was made by the Government in this case with the exception of the implementation of the Heavy Weather Plan associated with Hurricane Sandy (see Part D below), even though numerous changes exceeded the \$100,000 threshold. Trial Tr. 268, 271; see, e.g., JE 1, 3, 5-6, 8, 16-19.

¹⁶ ECR's damage estimates use a Government approved "blended labor rate" for each additional hour that Plaintiff asserts its employees were performing change order work. Defendant does not dispute the accuracy of the calculation of the claimed labor rates.

submitted by ECR, like the evidence at trial, was based almost exclusively on estimates.¹⁷

When applying the jury verdict method to the trial evidence, the Court will not allow the leniency permitted "as to the actual mechanics of computation" to relieve ECR/Técnico of the burden to establish the "fundamental facts of liability, causation, and resultant injury," Wunderlich Contracting Co. v. United States, 351 F.2d 956, 968 (Ct. Cl. 1965) (emphasis added), and will act carefully to avoid "rewarding . . . imprecise claims based on undocumented costs with unjustified windfalls," Dawco Constr., 930 F.2d at 882. However, having sat through ten days of a bench trial, having judged the credibility

¹⁷ In Dawco Construction, the Federal Circuit noted that the contractor "could have, and should have, been" in an ideal position to document its additional costs and that "[t]he issuance of a change order request should signal to the prudent contractor that it must maintain records detailing any additional work, just as should the encountering of differing site conditions." Dawco Constr., 930 F.2d at 881. In this case, however, the parties' course of dealing over a multi-year period indicated that settling of Contract changes (including those over \$100,000, and thus covered by FAR clause 52.243-6) would be based solely on estimates, and not actual costs. Accordingly, while the better practice surely would have been for ECR to more effectively track its costs, the failure to do so was apparently consistent with both parties' expectations at the time regarding changes. With such established history, the impossibility of creating such records years later supports the finding that there was no reliable basis for computing actual damages at the time the REA was prepared and/or at the time of trial. Cf. WRB Corp. v. United States, 183 Ct. Cl. 409, 425 (1968) (voicing the Court's displeasure with the use of the jury verdict method, but noting that there did not appear to be another alternative that "would produce any better foundation for an award."). Stated differently, while this Court must not award Plaintiff a "windfall" based on its knowing decision not to track costs, the Court must also ensure that the Government does not receive a windfall through failing to request cost-tracking during the availability, and arguably tacitly approving ECR/Técnico's failure to track costs over a multi-year period, only to demand the presentation of detailed records that do not exist more than a year after the work was completed.

of witnesses through firsthand observation, having asked many questions of witnesses and counsel, and having given much thought to how it can best apportion and calculate damages, the Court concludes that it is capable of making a sufficiently reliable damages calculation with respect to certain claims. On the other hand, where the Court finds that evidence of damages is insufficient to support a reliable calculation, the Court will not award damages even if ECR or Técnico have effectively demonstrated that they performed additional work without compensation.

III. Factual and Legal Analysis of the Claims under the "Changes" Clause

With the above background factual and legal findings, the Court now turns to an issue by issue analysis of ECR's direct claims, and ECR's pass-through claims asserted on behalf of Técnico and MIC. Within such analysis, the Court makes additional factual and legal findings, as necessary, to determine the extent to which Plaintiff has demonstrated that it is entitled to an equitable adjustment under the Changes clause, either on a theory of a direct or constructive change, or based on the assertion that the Government improperly assessed a "credit," under the parties' Contract.

A. Structural Steel PCP - ECR Item 8, Técnico Item D

One of the primary disputes in this action was whether RCC-7G, incorporated into the Contract by MOD-2, bound ECR to merely develop and write the structural steel PCP (as argued by ECR) or whether it bound ECR to develop and write the PCP as well as to implement it (as argued by the Government). Associated with such matter is the factual dispute as to whether implementing a PCP necessarily changes the scope of the work (as argued by ECR) or whether a PCP merely documents the method that the contractor had always proposed to perform the work (as argued by the Government). To the extent that the evidence demonstrates that the PCP in this case increased ECR/Técnico's cost of performance, the parties further dispute whether ECR/Técnico took on the risk and/or waived its claim to recover such costs by agreeing to the MOD-2 change order.

While the answers to the above questions may vary from contract to contract, as discussed in detail below, the Court finds that, on this record, ECR is entitled to an equitable adjustment based on the increased cost of performance stemming from the PCP. Such equitable adjustment is appropriate based on a theory of "constructive change" resulting from the Government's failure to disclose superior knowledge to ECR. Alternatively, the Court finds a constructive change through informal agreement based on evidence establishing that after the

PCP change order was negotiated and finalized, the Government engineers, representatives from the Navy "Waterfront Ops," and most importantly, a Government Contracting Officer, all agreed that the Government had dictated a method of performance that increased the costs of ECR's performance, thus entitling ECR to additional compensation.

As to the quantum of damages, ECR seeks \$1,995,345 on its PCP line item, as well as tens of thousands of dollars in damages for delay days caused by the Government.¹⁸ Técnico seeks \$430,718.52 in direct costs associated with the PCP, as well as over \$100,000 in disruption damages and between \$68,000 and \$120,000 in delay damages.¹⁹ As set forth below, after applying

¹⁸ ECR's monetary claim for delay damages is not stated by the Court with any degree of specificity (on this line item, or others) because it is impossible for the Court to quantify ECR's individual requests with precision. This is so because ECR asserts that the Government is responsible for 230 total delay days, resulting in an "actual delay" of 120 days, but ECR requests monetary compensation for only ninety-nine of these 120 days. ECR Ex. 4. ECR seeks \$2,207 for each of the ninety-nine days for which it seeks compensation, for a total of \$218,493.

¹⁹ The Government does not appear to dispute the fact that, when a compensable change to a fixed price contract occurs, an award for "disruption" may be appropriate to compensate the contractor for the impact such change has on the overall availability (such as increased overtime costs, additional labor costs due to inefficiencies, or costs incurred as a result of the need to reschedule future work). See Bell BCI Co. v. United States, 72 Fed. Cl. 164, 168 (2006) ("There is a distinction in the law between: (1) a 'delay' claim; and (2) a 'disruption' or 'cumulative impact' claim. Although the two claim types often arise together in the same project, a 'delay' claim captures the time and cost of not being able to work, while a 'disruption' claim captures the cost of working less efficiently than planned."). ECR has included its "disruption" damages within its item-by-item claims, whereas Técnico has chosen to limit its item-by-item claims to its "direct costs" and has separately advanced an independent claim item seeking to recover for "disruption." Técnico presents two different theories for calculating disruption, one of which applies an across-the-board percentage (25.83%)

the jury verdict method, the Court awards ECR \$730,449 in damages, consisting of \$715,000 in direct and disruption damages, and \$15,449 in delay damages. Técnico is awarded \$270,000 in direct and disruption damages.

**1. ECR Agreed to both Write and Implement a PCP
in November 2011**

It is undisputed that the Government informed ECR that it was requiring a structural steel PCP at the post-award conference in September of 2011, but it was not until the middle of November 2011 that the parties finalized the written Contract modification adding the PCP.²⁰ The record reveals a significant dispute between the parties prior to the November agreement as to whether ECR should be compensated as little as \$5,000, or as much as \$50,000 for the PCP change order. The trial evidence supports the finding that the Government initially balked at the cost proposed by ECR, asserting that the change only required ECR to write a document. The evidentiary record, to include

to Técnico's direct costs (the percentage was calculated through use the "range method"), the other seeks to estimate a disruption percentage on an item-by-item basis, taking into account the facts of the individual issues. As to delay damages, Técnico seeks \$5,712 for each delay day based on its "production support costs," which are the daily costs for Técnico to have its project managers, superintendents, supervisors, etc. on the job even if no physical work is being performed on the Vessel on a given day.

²⁰ The trial record establishes that, at any point prior to the parties' agreement on the written change order, the Navy could have canceled RCC-7G, that is, it could have changed its mind about requiring the PCP and permitted the steel work to begin with a generalized "plan and sequence" similar to that used during the Bahrain PC overhauls, or it could have merely left the process/procedure in ECR's hands as a capable shipbuilder, the latter course being what was called for by the original Contract.

ECR's PCP bid proposal, ECR Ex. 205, as well as trial testimony, Trial Tr. 99-101, confirms that ECR focused its cost proposal solely on writing the document, not implementing it. Cf. Trial Tr. 1051-52 (indicating that Técnico, who was drafting the PCP for ECR, was happy to modify the PCP in any way requested by the Government because Técnico's view was that the cost of performance would be negotiated at a later time). Moreover, it appears that the Government was likewise focused solely on the cost of writing the document. Trial Tr. 100; see Govt. Ex. 26 (Government's independent estimate of the cost of the PCP change order indicating that a PCP was being added and "[t]herefore, labor hours were allowed for the Contractor's QA department to develop a PCP for the ship's [hull]").

Notwithstanding the above facts supporting ECR's contention that, in November of 2011, both parties were focused solely on the cost of writing the PCP, such evidence does not resolve the associated question as to whether adoption of the PCP would increase the cost of performance. As noted above, whether ECR has a valid claim for additional compensation for implementing the PCP is intertwined with the dispute as to whether the PCP being negotiated was to merely memorialize ECR's existing planned procedure for structural steel repairs, or whether it would change ECR's existing plan/procedure. To the extent that the PCP would merely document, in writing, ECR's then-existing

plan for performance, it would be expected that the parties would focus negotiations solely on the cost of writing the document because, absent unforeseen events occurring during the availability, following the same (now written) plan that ECR used to bid the Contract should not materially increase the cost of performance. On the other hand, if the PCP was to create an entirely new plan of performance that was more complicated and more time-consuming (and thus more costly), then the cost of writing the PCP and the cost of implementing the PCP would be two conceptually distinct matters.

Turning to the Contract itself, the Contract language adopted by both parties clearly and unambiguously indicates that ECR was to both provide and accomplish the PCP.²¹ While such language is "standard" Navy language drafted by Defendant, in light of ECR's years of experience contracting with the Navy, such fact further undercuts, rather than supports, ECR's position because the inclusion of this PCP, at least as of November 2011, was no different than PCPs encountered by ECR on

²¹ Specifically, the Contract modification agreed to by the parties required ECR to "Accomplish the requirements of 009-09 for a Process Control Procedure defining the sequence, processes and techniques that will be in place during the structural repairs" JE 70. Navy standard item 009-09 is titled "Process Control Procedure (PCP); provide and accomplish" and states in § 3.4 that the contractor must "Accomplish the requirements of the reviewed PCP." JE 63, at 009-09. While ambiguous clauses in a maritime contract are generally interpreted against the drafter, Colonna's Shipyard, 2015 WL 9008222, at *9 (citing Dann Marine Towing LC v. Gen. Ship Repair Corp., 31 F. Supp. 3d 743, 746 (D. Md. 2014)), ECR fails to demonstrate that such clearly worded language contains any ambiguity.

past contracts. The Court is therefore compelled to reject ECR's characterization of MOD-2/RCC-7G as being strictly limited to adding the requirement that ECR draft a PCP.²² In rejecting ECR's position, the Court highlights the fact that the unambiguous language of MOD-2/RCC-7G represents the written expression of the parties' final agreement. Such written modification was agreed to by both parties and trumps any prior oral statements commenting on whether the parties were negotiating to "write a piece of paper."²³ See O'Brien v. Miller, 168 U.S. 287, 297 (1897) (indicating that "the whole contract must be . . . interpreted with reference to the nature of the obligations between the parties, and the intention which they have manifested in forming them") (emphasis added) (citation omitted); Bullwinkel v. New England Mut. Life Ins. Co., 18 F.3d 429, 431 (7th Cir. 1994) (indicating that, under federal common law, a reviewing court must "give effect to the words which denote the bargain, not in light of public policy

²² The Court similarly rejects Plaintiff's contention that it was impossible to estimate the cost of performing the PCP prior to determining what the PCP would entail—the fact that future costs cannot be stated with precision is precisely why a projection of yet to be incurred costs is called an "estimate." As discussed at length during the trial, ECR appeared fully capable of bidding/estimating a much higher price per square foot for structural steel renewals on the TEMPEST overhaul, which included in the original specification package the express requirement that a PCP govern the structural steel renewals.

²³ In fact, such language, deemed unambiguous by the Court, appears to render it improper to even consider the earlier oral statements and/or alleged oral promises made during negotiations. See Bell BCI Co. v. United States, 570 F.3d 1337, 1341 (Fed. Cir. 2009).

considerations, but in light of their plain meaning"); cf. Virginia Elec. & Power Co. v. N. Virginia Reg'l Park Auth., 270 Va. 309, 316, 618 S.E.2d 323, 326 (2005) ("The pole star for the construction of a contract is the intention of the contracting parties as expressed by them in the words they have used It is the court's duty to declare what the instrument itself says it says.'" (alteration in original) (quoting Ames v. Am. Nat'l Bank of Portsmouth, 163 Va. 1, 38, 176 S.E. 204, 216 (1934))). Accordingly, for the above stated reasons, the Court finds that ECR agreed to write and implement a PCP in November of 2011.

2. The Navy's Failure to Disclose its Superior Knowledge prior to November 2011 resulted in a Constructive Change, ultimately requiring ECR to write and implement a different PCP than required by MOD-2

Notwithstanding the Court's conclusion that ECR was contractually bound to write and implement a structural steel PCP, it was only after such Contract modification (requiring the writing and implementation of a PCP) was signed that the Government revealed recently obtained internal Navy knowledge regarding the method of performance that would be required by the Navy. Although ECR, as contractor, agreed in November to write and implement a PCP documenting ECR's plan for structural steel renewals based on ECR's established experience in the shipbuilding industry and ECR's assessment of the risk factors

associated with the THUNDERBOLT overhaul, the Government subsequently revealed its superior knowledge regarding its interpretation of acceptable performance methods for a large-scale PC overhaul, and such newly disclosed knowledge was the equivalent of a mandate that ECR draft and accomplish a PCP materially different from that contemplated by ECR when it agreed to MOD-2.

More specifically, as set forth above in the Court's factual findings, on December 1, 2011, subsequent to MOD-2, the Government revealed to ECR/Técnico the Government's internal knowledge of the elevated risks associated with the overhaul of the THUNDERBOLT based on knowledge that the Government had only recently learned through overhauls of other PC class vessels conducted in Bahrain. Such knowledge was not tantamount to "industry practice" such that any experienced shipbuilder would be aware of it, but instead consisted of performance requirements and procedures that were not even fully known to NSSA, but instead resided solely in the Navy's Carderock Division of engineers. The Court therefore finds that the Contract was "constructively changed" based on the Navy's "nondisclosure of superior knowledge" which was critical to ECR's ability to provide: (1) an accurate original bid for performing the structural steel renewals on the THUNDERBOLT; and (2) an accurate estimate of the cost of writing and

accomplishing the structural steel PCP. Miller Elevator Co., 30 Fed. Cl. at 678; cf. ECR Ex. 60 § 2.18.4.2 (Navy "Joint Fleet Maintenance Manual" discussing "constructive change orders" based on the Government's "Failure to Disclose Vital Information," explaining as follows: "Nondisclosure is a change to the contract where the contractor undertakes to perform a contract without knowledge of vital information that affects performance. In order to be liable, the Government must be aware the contractor had no such knowledge, the specifications misled the contractor and did not put the contractor on notice to make inquiry and the Government failed to provide the information.")).

To explain the Court's findings on this issue in the simplest form, similar to the Government's recent discovery that its PC class vessels had suffered structural damage over time based on the fact that they were treated as "ships" when being docked pursuant to the Navy-approved docking plan (thus requiring a new Government mandated docking plan for the THUNDERBOLT availability) the Government learned in Bahrain, but failed to disclose to ECR prior to the negotiation of RCC-7G, that performing structural steel repairs using "good ship-fitting practices" as planned by ECR may cause additional structural damage (thus requiring a new Government mandated structural steel renewal plan for the THUNDERBOLT availability).

While Defendant negotiated and settled a change order with ECR for the new docking plan early in the availability, and multiple Navy officials (including high-ranking Navy members of "Waterfront Ops" and the Contracting Officer on site at ECR) agreed with ECR in early 2012 to negotiate a change order regarding the obvious fact that the finalized PCP would cost far more to implement than ECR's performance plan as of the time of its bid and as of the time that RCC-7G was negotiated and settled, senior Contracting Officer Kenny Rice made the decision, apparently on less than complete information, that "nothing had changed" since RCC-7G was negotiated. ECR Ex. 208. As explained below, Mr. Rice's contention that the waiver in MOD-2 acted to bar ECR's claims for additional compensation is rejected by the Court as unsupported by the evidence.

In concluding that the Government's withholding of information constituted a "constructive change" to the Contract, the Court resolves in ECR's favor the factual dispute as to whether the Government mandated, in part, what was included in the structural steel PCP, as contrasted with Government Engineers merely making "suggestions" to ECR/Técnico, ultimately leaving it to the contractor to document the process and procedure that ECR/Técnico planned to follow in order to perform the structural steel renewals. Timothy "Spike" Harrison, the experienced project manager for Técnico on the THUNDERBOLT

availability, was present at the December 1, 2011, meeting when the Government first presented its in-depth knowledge learned during prior PC availabilities in Bahrain. Mr. Harrison testified at trial in a credible and compelling manner, indicating that he carefully listened to the Navy's presentation while taking notes, and later followed up with Navy Project Manager Justin Thivierge to ask several questions. Mr. Harrison testified that the requirement of "pre-fit" inspections was new to him, and he wanted additional clarity as to this and other matters.²⁴ Mr. Harrison credibly testified that Mr. Thivierge told Mr. Harrison during this conversation that Técnico needed to "put every cut, where you're going to cut it and when you're going to cut it, in your PCP, and once we review it we'll let

²⁴ The Court notes that counsel for ECR/Técnico contended at trial, as best evidenced by the redirect examination of Carderock Naval Architect Thomas Helfridge, that the fact that the PCP included not only a "fit-up" inspection, but also a "pre fit-up" inspection, demonstrates that the Government mandated such additional time-consuming step at the December 1, 2011 meeting. Trial Tr. 1647-48. The Court rejects such contention, finding that Plaintiff's counsel appears to have misstated the Contract requirements when questioning Mr. Helfridge. Notably, the requirements that there be both a "pre fit-up" inspection and a "fit-up" inspection were included in the structural steel line item in both the original Contract specification and Errata 6. ECR Ex. 11, at 110-11-002 §§ 3.2.1, 3.2.2; ECR Ex. 15 at 110-11-002 §§ 3.3.1, 3.3.2. Although Mr. Harrison acknowledged during his testimony that, according to his understanding, a pre "fit-up" would have been required on this job even without the PCP, Mr. Harrison's general unfamiliarity with pre "fit-up" inspections after his many years in the industry demonstrates, in conjunction with other evidence, that: (1) even before the PCP was invoked, the THUNDERBOLT specification required an atypical additional step that would increase the cost of the structural steel repairs; (2) ECR/Técnico bore the risk of this additional cost as it was expressly included in the specification; and (3) it appears that ECR's initial bid did not fully account for the complexities that should have been recognized by the contractor based on both the atypical structural steel requirements set forth in the Government specification and the class of vessel being overhauled.